REMARKS/ARGUMENTS

Claims 21 and 22 were amended only to more clearly represent their intended scope. As such, Applicant has not limited the scope of these claims and has not added any new matter.

1.) Claim Rejections – 35 U.S.C. § 102(b)

Claims 14-16, and 21 stand rejected under 35 U.S.C. 102(b) as being anticipated by Soliman (US 6,081,229). Applicant respectfully disagrees.

Soliman discloses a GPS position location and wireless communication technologies to achieve a precise position location in dense urban and other environments when line-of-sight to the satellites is somewhat obscured. The method uses signals from only two GPS satellites and the serving terrestrial base station. (See Soliman, Abstract)

The Examiner's attention is directed to the fact that Soliman fails to teach, disclose, or suggest "receiving said radar signals by a number of antennas", as recited in independent claim 14, and "a plurality of antenna sets for receiving the radar signals", as recited in independent claim 21.

The present invention discloses, in one embodiment, providing an ESM system for detecting the presence of radars in an area that covers an adequate instantaneous bandwidth and is able to perform a detailed pulse analysis in order to identify the emitter source.

In contrast, the Soliman reference describes a system for position determination of a handheld receiver based on the GPS signal and the use of the signal from the base station to reduce the number of necessary visible GPS satellites (from 4 to 3) needed for 3-dimensional position determination. The Soliman system is an "improved GPS receiver" where the GPS receiver is prior art. The improvement in Soliman lies in the use of a base station signal as the fourth signal in the navagation equation. The system is intended for determination of the handheld terminals own position.

The present claims are directed to radar signals (pulse signals). GPS signals are continuous signals. As such, Soliman cannot be applied to anticipate the present claims since Soliman only teaches the use of GPS signals not radar signals.

In view of the above arguments, Applicant submits that independent claims 14 and 21 are patentable over the cited art. Claims 15 and 16 are patentable at least by virtue of depending from their respective base claim.

2.) Claim Rejections – 35 U.S.C. § 103 (a)

A. Claims 17-20

Claims 17-20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Soliman (US 6,081,229). Applicant respectfully disagrees.

The Examiner concedes that Soliman fails to disclose measuring pulse peak amplitude and average amplitude. As established above in Section 1.) of this Response, Soliman fails to teach "receiving said radar signals by a number of antennas" and "a plurality of antenna sets for receiving the radar signals".

Soliman does not disclose transforming signals to frequency domain. Dividing the cellular band into cellular channels is not frequency transformation. GPS does not have subbands since all satellites transmit on the exact same frequency on each main GPS frequency.

Soliman does not disclose a method for direction of arrival determination. Instead, Soliman uses time difference of arrival (like any other GPS receiver) and measured distance from the base station.

Soliman does not disclose a method for position determination of a non-cooperating remote emitter. Soliman instead discloses a cellular/GPS based method for position determination of a handheld terminal.

Soliman's method cannot inherently provide a method for improving direction of arrival measurements, since direction of arrival is never measured in Soliman.

Due to the above arguments, Applicant submits that the Examiner has failed to establish a prima facie case of obviousness for claims 17-20.

B. Claim 22

Claim 22 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Soliman (US 6,081,229) in view of Young (US 2004/0072575). Applicant disagrees.

The Examiner concedes that Soliman fails to teach double downconversion circuitry. In order to cure the Examiner's perceived deficiency in Soliman, Young is cited.

Young discloses a combined Global Position System ("GPS") and radio system for receiving GPS signals and radio signals. The combined GPS and radio system includes a controller that controls a switchable frequency source and a mixer in signal communication with the switchable frequency source. The mixer is capable of receiving both GPS signals and radio signals and producing corresponding intermediate frequency ("IF") signals in response to receiving a frequency reference signal from the switchable frequency source that has a first switch state of operation that corresponds to the mixer receiving GPS signals and a second switch state of operation the corresponds to the mixer receiving radio signals. (Young, Abstract)

As established above in Section 1.) of this Response, Soliman fails to teach "a plurality of antenna sets for receiving the radar signals". Citing Young also fails to cure this deficiency. Therefore, the Examiner has failed to establish a prima facie case of obviousness for independent claim 22.

C. Claims 23-26

Claims 23-26 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Soliman (US 6,081,229) in view of Young (US 2004/0072575) and further in view of Carlin (US 6,898,235). Applicant disagrees.

The Examiner concedes that Soliman and Young fail to disclose detectors and comparator, controlling amplifier to save power, and using two separate antennas to receive two range of signal. In order to cure the Examiner's perceived deficiencies of Soliman and Young, Carlin is cited.

Carlin discloses a physically compact, wideband signal activity identification, demodulation and characterization, and direction finding device incorporates multiple

and cascadable digital signal processing modules operating in asynchronous real time. The digital signal processing modules include a device for data buffering, a device for digital signal processing (DSP), and a device for high-speed data routing. The module device for data buffering is composed of, among other memory devices, a First In Tap Out (FITO) data buffer that may be accessed at any point for delay or faster than real time resynchronization by the DSP module device. The module device for digital signal processing function incorporates a general purpose digital processor for respective module calculation of overlapped hyperchannelization Fast Fourier Transforms (FFT). Hyperchannels may be combine in a flexible manner to tailor channel bandwidth for optimum signal spectral detection of signal activity, synthesis filter and tuning, demodulation and recognition, and direction finding. The module device for high-speed data routing is composed of one-to-one, one-to-many, or many-to-one digital data routing functions, and allows flexible ordering of digital signal processing modules. (Carlin, Abstract)

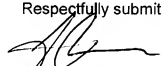
As established above in Sections 1.) and 2. B.) of this Response, Soliman and Young fail to teach "a plurality of antenna sets for receiving the radar signals". Citing Carlin also fails to cure this deficiency. Therefore, the Examiner has failed to establish a prima facie case of obviousness for claims 23-26.

CONCLUSION

In view of the foregoing remarks, the Applicant believes all of the claims currently pending in the Application to be in a condition for allowance. The Applicant, therefore, respectfully requests that the Examiner withdraw all rejections and issue a Notice of Allowance for all pending claims.

The Applicant requests a telephonic interview if the Examiner has any questions or requires any additional information that would further or expedite the prosecution of the Application.

Respectfully submitted,



Thomas Bethea, Jr.
Registration No. 53,987

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Ericsson Inc.
6300 Legacy Drive, M/S EVR 1-C-11
Plano, Texas 75024

(972) 583-4859
thomas.bethea.jr@ericsson.com